



CALRECYCLE

Tire Recycling Incentives and EPR

A High-Level Overview

Ed Boisson

April 17, 2012



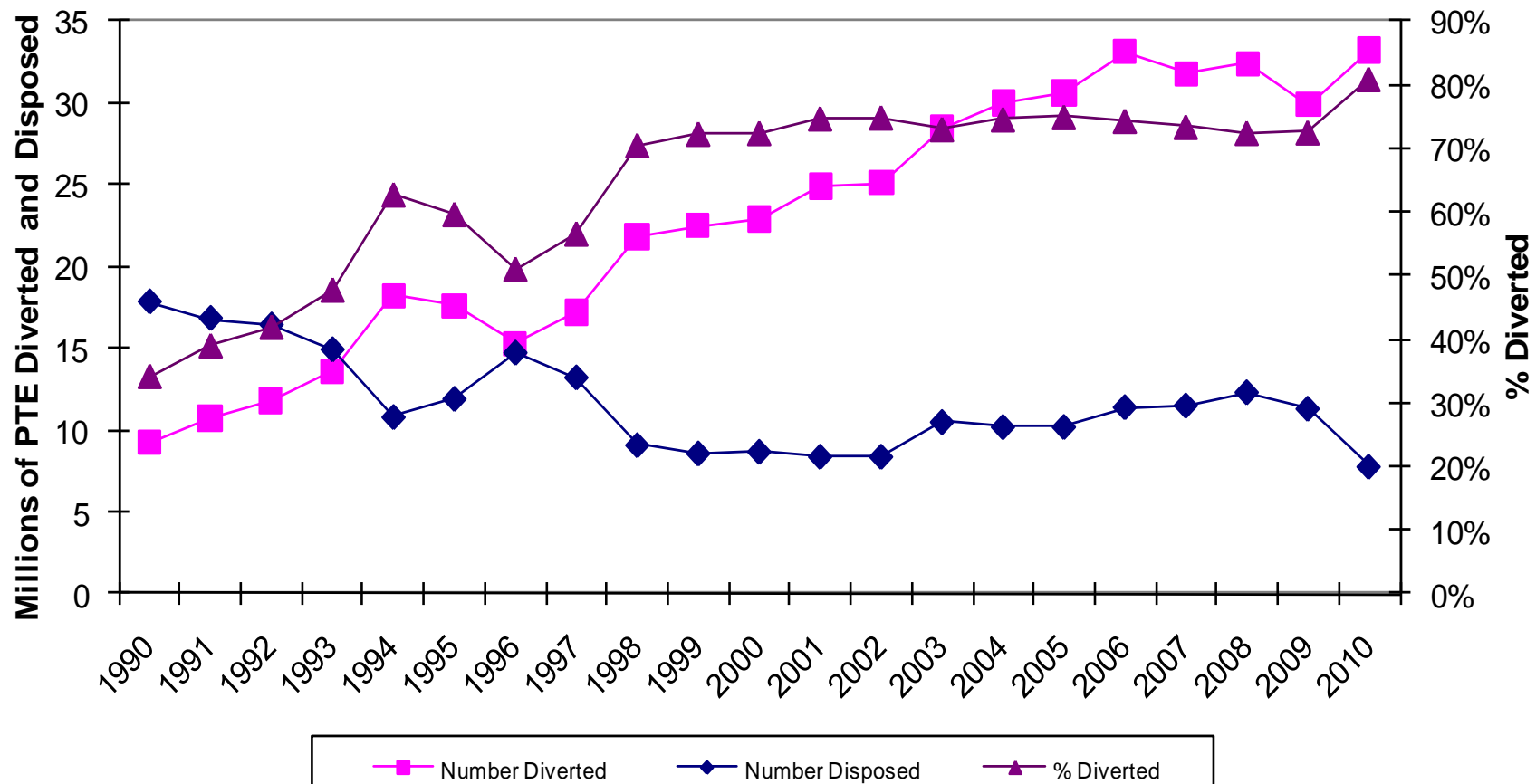
Overview of Incentive Payments and EPR

Presentation Outline

- Background
- Incentives Evaluation
- EPR Evaluation
- Implementation Issues
- Conclusions

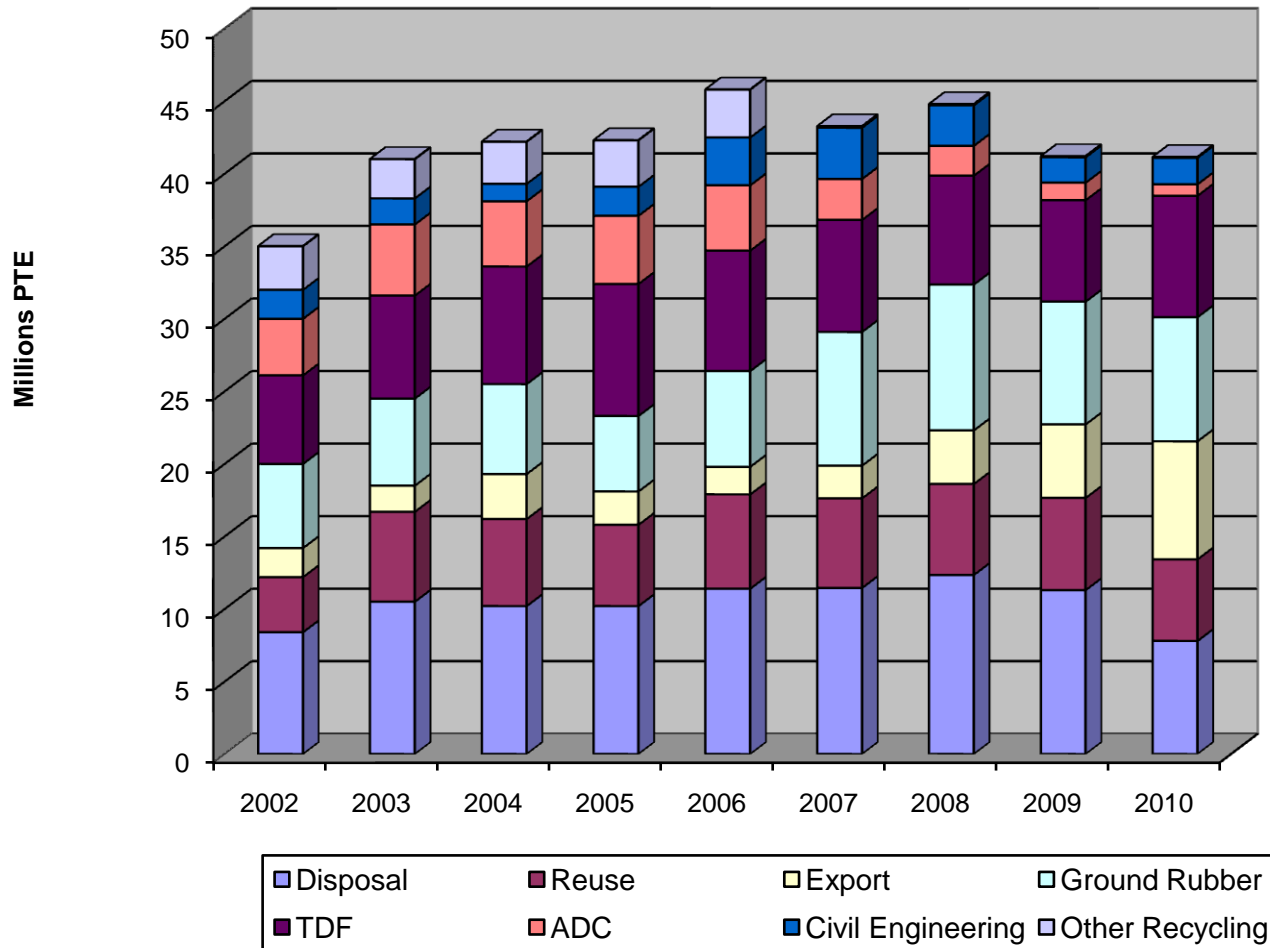
Background

California Waste Tire Diversion Trends



Excluding all exports, TDF and ADC, the 2010 Diversion Rate Was 39%.

2010 California Waste Tire Market Uses



Key Market Trends

- **Exports Still Increasing – Big Increase Over 2010**
- **CA Crumb Production Flat**
 - Competition Imported Crumb and TDPs
 - Over Supply in North America?
 - Export Impacts
- **CA TDF Growth Potential (But Supply, Demand Challenges)**
- **Civil Engineering Slow Growth to Date**
- **2011 Disposal May be at All-Time Low/Diversion at All-Time High (Due to Increased Exports Mainly)**

Report Context

- Purpose
 - Help Evaluate Future Directions
 - Provide Objective Information on Two Broad Policy Options
- Scope
 - High-Level Overview
 - ID Advantages and Disadvantages, Options and Issues
 - No Specific Recommendations or Proposals
- Challenges:
 - Details, Details
 - Conflicting, Spotty, Sometimes Old Information
 - Parsing Opinions vs. Facts

It's a draft report – your input is needed!

EPR Evaluation

Definition of Extended Producer Responsibility (Also Called Product Stewardship)

- “...a strategy to place a shared responsibility for end-of-life product management on the producers and all entities involved in the product chain...”
- Key Statute Elements:
 - Brand Owner Roles: Funding, Operations and Achieving Goals
 - Measurable Goals
 - State Role in Oversight and Ensuring Accountability
 - Range of Acceptable/Required Management Practices (i.e., is TDF Allowed?)
 - Address Anti-Trust Issues

EPR in California

- CalRecycle Interest
- California Product Stewardship Council
 - 126 Local Agency Resolutions Supporting EPR
- CA EPR Mandates:
 - Paint
 - Carpet
- Tires – CIWMB with Product Stewardship Institute:
 - July 2004 Tire Stewardship Forum
 - July 2005 Tire Stewardship Action Plan
 - No Further Action to Date

Tire EPR Examples

- Producer Responsibility Organizations (PRO) Implement
 - Examples: Ontario Tire Stewardship (OTS) or Tire Stewardship British Columbia (TSBC)
- Funding Options:
 - Manufacturer Payments Based on # of Tires Sold (OTS: C\$5.84 - C\$250 per Tire)
 - Visible Retail Fee (TSBC: C\$5.00 - C\$35 per Tire)
- Approaches to Providing Services:
 - Standard Payment Schedule; Registered Firms Compete (OTS and TSBC)
 - Direct Contracting with Collection, Hauling and Processing Firms (Aliapur in France)

Tire EPR Examples (Continued)

- Examples of PRO Market Development Mechanisms
 - OTS:
 - Crumb Producer Incentives C\$155-\$270/MT
 - TDP Manufacturer Incentives C\$40-160/MT
 - TDP Purchase Grants, R&D Grants, Demonstration Projects, Outreach & Education
 - TSBC:
 - Crumb Producer Incentives C\$266-\$370/MT + C\$168/MT for Wire/Fluff
 - TDP Manufacturer Incentives C\$110/MT
 - Signus (Spain): R&D Program

EPR Advantages

- Expansion/Strengthening of Crumb Production and Market Infrastructure
- Private Sector Business Acumen and Supply Chain Relationships
- More Flexibility and Stable Funding than Government
- Minimize Government Costs and Staffing
- Internalize Recycling into Business Costs

Note: EPR May Involve Incentive Payments

EPR Disadvantages

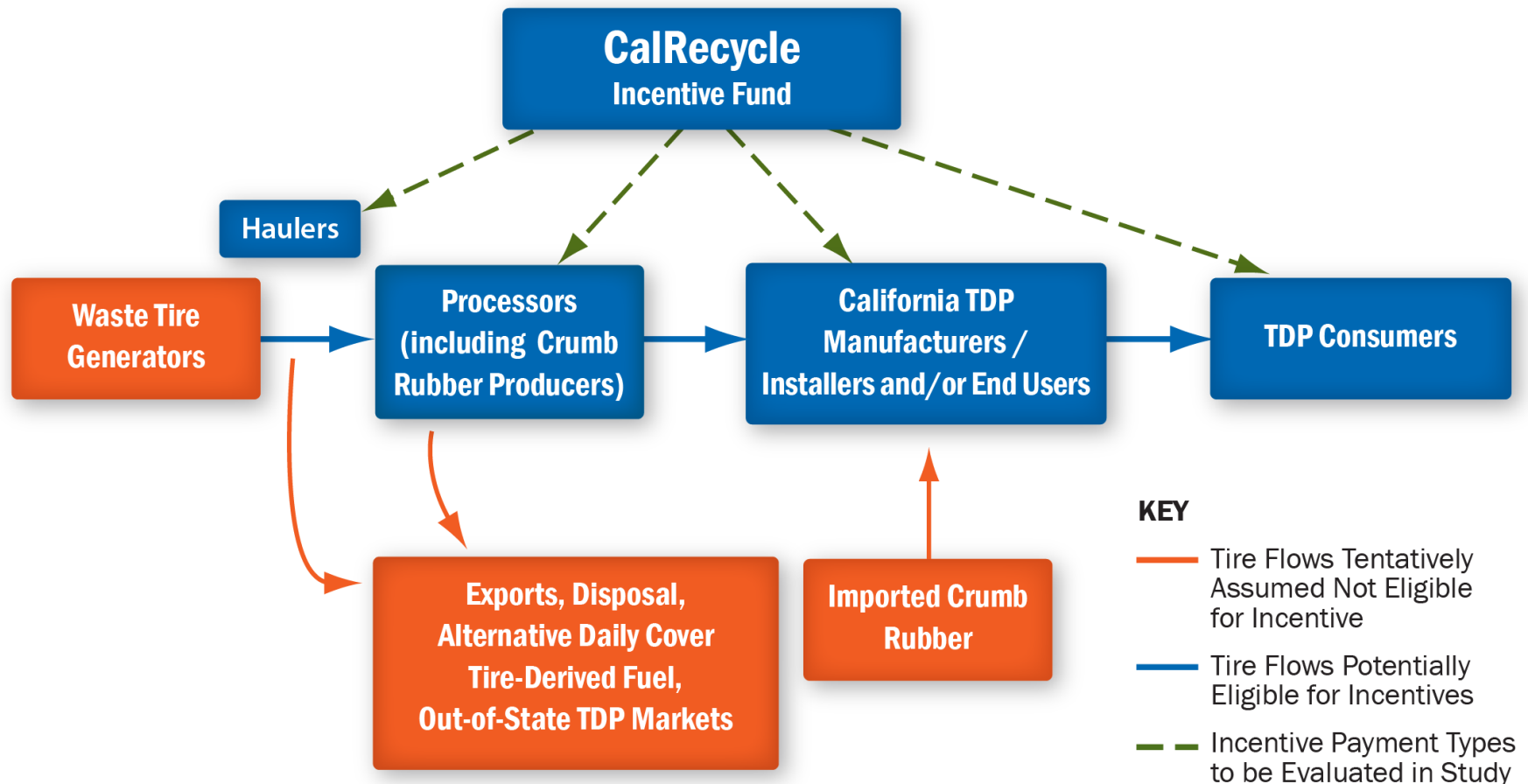
- Potential to Negatively Impact Some Market Players
- Potential Disruptions to Market Pricing
- Reduced Government Control, Stakeholder Involvement and Transparency
- PRO May Focus on Least Cost Solutions, Not “Highest and Best Use”
- PROs Can’t Adopt Legislation or Regulations

For Discussion Purposes Only, How Could a Tire EPR Policy be Structured?

- Potential Elements:
 - Responsible Parties = Tire Brand Owners/First Importers
 - Accountable Goal: Divert 90% of California Tires from Landfill
 - Include Explicit Market Development Role
 - Meaningful Penalties/Recourse for Non-Compliance
 - CalRecycle Role: Oversight and Accountability
- Key Questions:
 - Limit Allowed Management Practices (TDF, ADC, Export)?
 - Limit Allowed Funding Mechanisms (Visible Retail Fee)?

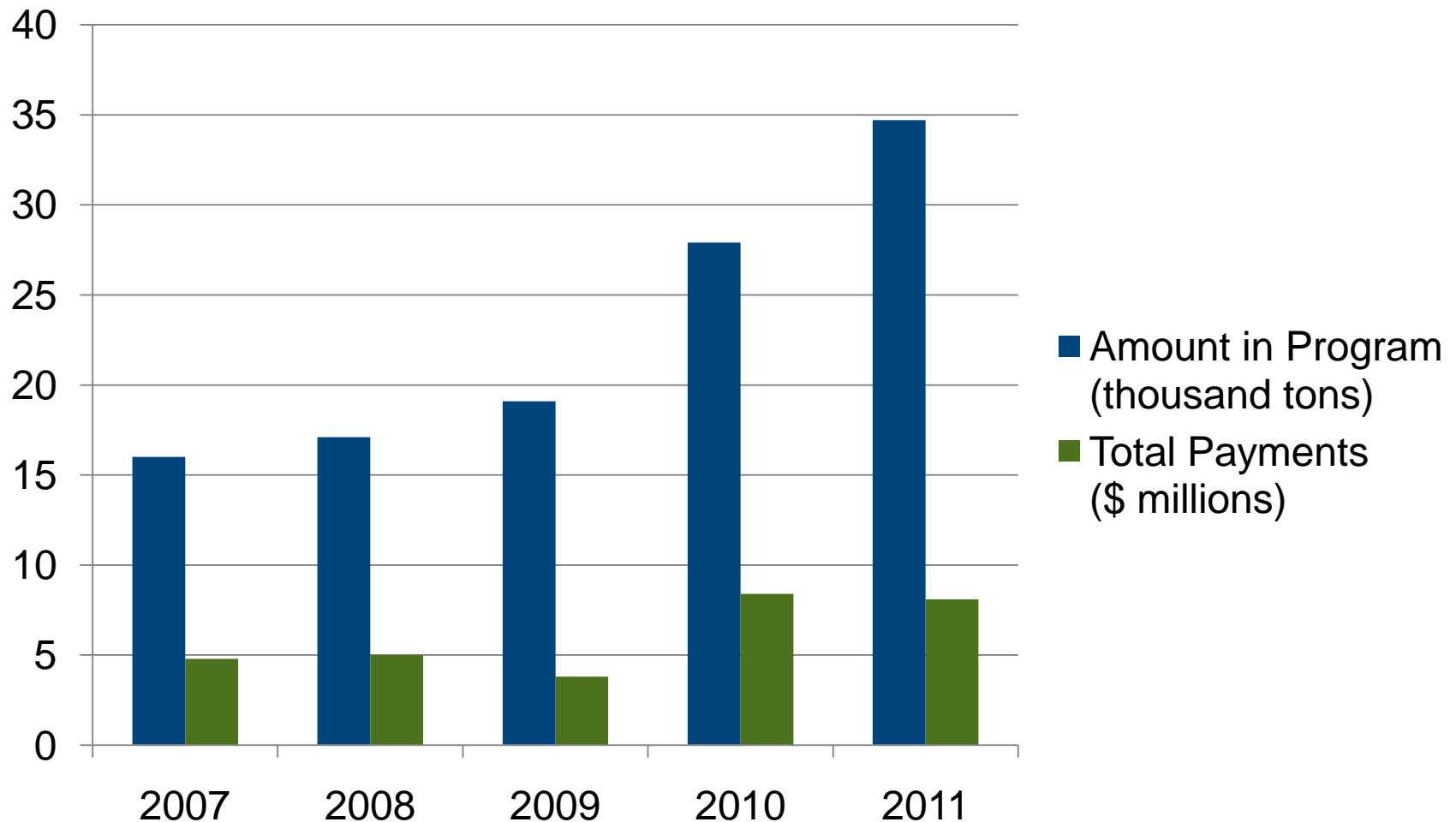
Incentives Evaluation

Definition of Incentive Policy

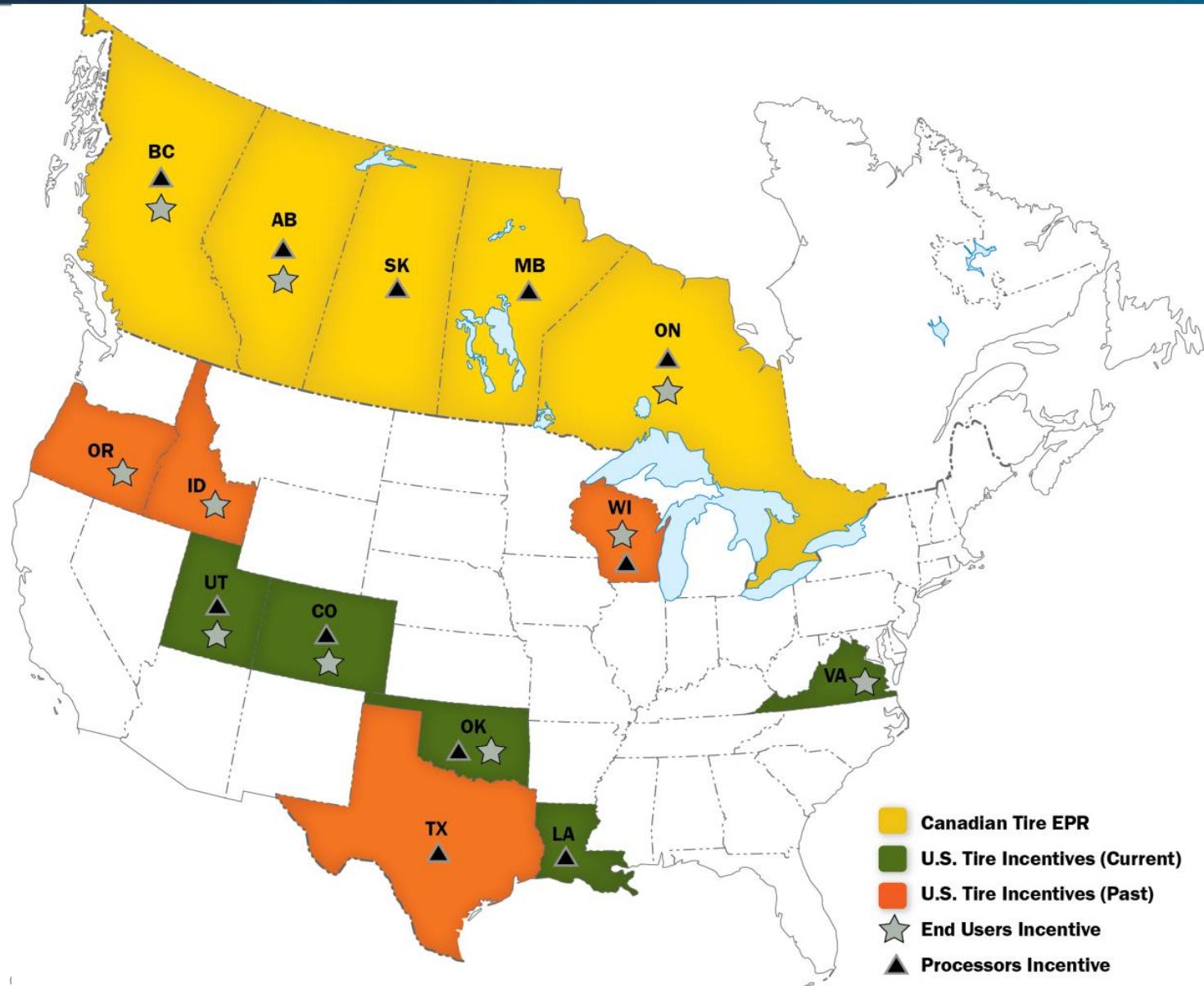


For this report, “incentive policy” means direct monetary payments to selected entities for specified types of activities involving recycling.

Plastic Market Development Program Data



North American Tire Incentive and EPR Programs



U.S. State Tire Incentive Programs

- Very Diverse – No Two Are Alike
- Who is Eligible?
 - Processor Only (TX, LA)
 - End User Only (OR, ID, VA)
 - Processor and End User (UT, CO, OK, WI)
- How Much is the Incentive?
 - \$22.50 - \$150 per ton With Wide Variation
 - Tiered Rates for Different Markets (CO, OK, UT, WI)

Incentive Payment – Advantages

- Effective in Strengthening Infrastructure and (to a Lesser Degree) Increasing Demand
 - Increased Cash Flow
 - Flexible – Recipients Choose How to Use \$
 - Provides Incentive for Using Local Materials
 - Examples:
 - CA Plastics Program
 - U.S. State Tire Incentives
 - Focus on stockpile clean up and TDF, Civil Engineering
 - Support crumb production in some states (UT especially)
 - Canada – Focus on crumb production and TDP manufacture (But Still High Crumb Exports)

Incentive Payment Advantages (Continued)

- Can Help Processors Compete with Waste Tire Exports
 - Secure Tires and/or Replace Reduced Tip Fee Revenue
- Can Help Increase Diversion Rates
 - Canada – High Diversion Rates Without Export
 - US States
 - UT near 100%: 63% to crumb, 37% to TDF
 - VA near 100%: 43% to TDF and 55% to Civil Engineering
 - Some Focus on Stockpile Clean-Up and Management vs. Diversion

Incentive Payment - Disadvantages

- Benefits May Depend on Program Continuation
- May Trigger Too Much Crumb Capacity or Production
- Implementation Challenges
 - Minimizing Fraud
 - Potential for Unpredictable Claim Increases and Payment Reductions
- May Promote Low-Value over High-Value Uses
- Subsidizes Naturally-Occurring Healthy Markets
- May Negatively Impact Non-Incentivized Markets
- While “Leveling Playing Field” for CA, May Negatively Impact Other North American Markets

If Implemented, Who Should Receive Incentive Payments?

- **Haulers – Probably No**
 - Few precedents; Limited Market Influence; Hard to Encourage Flow to Targeted Segments; Large #
- **Processors (Crumb & TDA Production) – Probably Yes**
 - Can Influence Markets; Can Document Flows to Targeted Segments; Can Compete Favorably with Out-of-State Producers
- **TDP Manufacturers/Other End-Users – Probably Yes**
 - Directly Increase Demand; Can Document Flows; Incentivizes Use of CA Tires; Can Target Specific Markets
- **Consumers – Probably No, but Need Demand Driver**
 - Direct Market Demand Impact; Large # Complicates Admin.; Continued Grants/Other Mechanisms Instead

If Implemented, What Should the Incentive Payment Amount Be?

For Discussion Only: \$25 - \$75 per Ton?

- Precedents
 - U.S. States: \$22.50 - \$150/ton
 - Canada: Up to C\$370/MT for crumb + C\$168/MT for steel/fiber
- High Enough to Make a Difference
 - Waste Tire Exports: \$60-\$80/ton, Tip Fee Revenue Down \$20-\$60/ton in 2 yrs
 - Crumb Pricing: 10-17 cents/pound (\$220-\$340/ton), Imports Sometimes Lower. Prices Down 3-5 cents/pound (\$60-\$100/ton)
- Not Too High to Trigger Unintended Consequences
 - Subjective Opinion: Less than \$100/ton?
- Set Rate at Level that Can be Fully Funded
- Options:
 - Tiered Rates by Product
 - Tiered Rate by Quantity Used/Processed
 - Include TDF?

For Discussion Purposes Only, How Could an Incentive Policy be Structured?

- **Assumed Goals**
 - Increase diversion via crumb and CE
 - Expand in-state infrastructure
 - Compete favorably with export market
- **Eligible Recipients**
 - CA Crumb Producers using CA tires only with documented sales to approved end-users in or out of state
 - CA TDP Manufacturers purchasing qualifying CA-produced crumb with documented product sales to customers in or out of state
 - CA CE project owners purchasing qualifying CA-produced TDA with documented use in approved projects
- **Incentive Payment Amounts:**
 - \$25 - \$75/ton; Tiered Rates by Application
 - Sufficient Long-Term Funding Needed for Anticipated Costs
 - Continuation of TDP and RAC Grants
- **Many Important Detailed Options to Consider**

What Would Total State Incentive Costs Be?

Payment Costs Based on 2010 Market Flows and \$25/ton

Category	Processor Tons Produced	Assumed % to CA End-User	CA End-User Tons Used	Total Payment
Crumb	59,500	96%	57,120	\$2,949,800
Civil Engineering	18,000	100%	18,000	\$900,000
Total	77,500		75,120	\$3,849,800

Payment Costs Based on Hypothetical Growth Scenario and \$25/ton*

Category	Processor Tons Produced	Assumed % to CA End-User	CA End-User Tons Used	Total Payment
Crumb	120,400	96%	115,584	\$5,899,600
Civil Engineering	56,000	100%	56,000	\$2,800,000
Total	176,400		171,584	\$8,699,600

* Assumes doubling of 2010 crumb use and doubling of 2008 C.E. use.

Energy | Environment | National Security | Health | Critical Infrastructure

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Potential Impacts

- Impossible to Predict Accurately
- Increase Diversion? Likely (while program operates)
 - Win Market Share from Non-CA Suppliers
 - Win Market Share from Non-Rubber Product Suppliers
 - Feedstock Conversion
 - TDF, ADC and Export May Decrease
- Strengthen or Expand Infrastructure?
 - Very Likely, but Risk of New Competition
- Reduce Exports?
 - Uncertain. Crumb/TDA Producers May Compete for Tires from Export Stream
 - Current Supply Pressure May be Greatest for TDF
- Higher Incentive Amounts May Increase Benefits and Risk of Negative Impacts

Implementation Issues

How Might CalRecycle Programs Change?

- New Roles: Administer Incentive or EPR Program
- Incentives - Potential Overlaps
 - TBAP and Loans
 - Incentives to CE End-Users MAY Overlap with TDA Grants
 - RAC and TDA Technical Assistance May Overlap But May Still be Needed
 - No Overlap: TDP, RAC Grants
- EPR
 - Could Significantly Reduce or Even Eliminate CalRecycle Market Development Functions
 - Permitting and Enforcement Still Needed

Note: Adjustments to Current Programs Would Depend on Statute Details and Policy Decisions

Required Conditions and Controls: Incentives

- Legislative Authority Sufficient
- Regulations Needed
- Payment System
 - Detailed source documentation provided showing sale of covered material/products
 - CalRecycle reviews claims, pays when approved
 - Dispute resolution mechanisms
 - State reporting and fund management/budgeting
 - Audits, compliance monitoring, enforcement mechanisms
- Combating Fraud
 - Enhance WTMS system?
 - Experience shows challenge in ensuring out-of-state tires are not approved
 - New challenge: ensuring tires flowed to approved end-users

Required Conditions and Controls: EPR

- Legislative Authority and Regulations Needed
- Stewardship Plan Review, Approval and Monitoring
- Mechanism for Communication/Direction to PRO
- Combating Fraud
 - Minimize “Free Riders”
 - Monitor Tire Sellers and Registered Responsible Parties
 - Enforcement Mechanisms

Conclusions

Concluding Remarks

- Both Incentives and EPR Offer Potential Benefits with Drawbacks and Risks
- Precedents “All Over the Map” - No Clear Guide for CA
- Dynamic Industry - Hard to Predict Impacts
- Both Incentives and EPR May Trigger Major Changes to CA Industry
- Many Stakeholders Need Time to Digest and React
- CA’s Size and Developed Infrastructure Could Exacerbate Potential Risks
- Decision Makers Should Proceed Cautiously and Float Specific Proposals for Feedback and More Detailed Analysis

Q&A and Comments

*Send written comments on draft report by April 30 to
jennifer.caldwell@calrecycle.ca.gov.*

Final Report projected for release in July.

Discussion and Feedback

1. Q&A (30 minutes)
2. Overall, should CalRecycle continue to explore possible implementation of incentives or EPR policies? Why or why not? (30 minutes)
3. If tire incentives were implemented in California, what types of firms and market segments should be eligible, and what should be the incentive payment amount? (20 minutes)
4. What are your biggest concerns and suggestions related to designing and implementing a tires incentive program? (20 minutes)